CLAIMS

1. An apparatus comprising:

2. at least one processor;

3. a memory coupled to the at least one processor;

4. a network interface that couples the apparatus to a network that is coupled to at

5. least one other computer system;

6. a cluster communication mechanism residing in the memory and executed by the

7. at least one processor, the cluster communication mechanism including a sliding send

8. window that communicates at least one ordered message to at least one other computer

9. system without waiting for an acknowledge message from the at least one other computer

10. system before sending out the next ordered message.

1. 2. The apparatus of claim 1 wherein each ordered message includes a header with

2. information that indicates whether an acknowledge message for the ordered messages

3. may be delayed and grouped with at least one subsequent acknowledge message.

1. 3. The apparatus of claim 2 wherein the acknowledge message acknowledges from

2. one to a plurality of ordered messages.

1   4.   A networked computer system comprising:

2   a cluster of computer systems that each includes:

3   a network interface that couples each computer system via a network to

4   other computer systems in the cluster;

5   a memory; and

6   a cluster communication mechanism residing in the memory, the cluster

7   communication mechanism including a sliding send window that communicates at

8   least one ordered message to at least one other computer system without waiting

9   for an acknowledgment from the at least one other computer system before

10   sending out the next ordered message.

1   5.   The networked computer system of claim 4 wherein each ordered message

2   includes a header with information that indicates whether an acknowledge message for

3   the ordered messages may be delayed and grouped with at least one subsequent

4   acknowledge message.

1 6.   A computer-implemented method for processing a task in a clustered computing
2 environment, the method comprising the steps of:
3   providing a cluster communication mechanism executing on a first computer
4 system in a cluster that includes a sliding send window that communicates at least one
5 ordered message to at least one other computer system in the cluster without waiting for
6 an acknowledgment from each computer system in the cluster that received an ordered
7 message before sending out the next ordered message;
8   the cluster communication mechanism sending a first ordered message to at least
9 one other computer system in the cluster;
10   the cluster communication mechanism sending a second ordered message without
11 waiting for a response to the first ordered message from the at least one other computer
12 system in the cluster.

1 7.   The method of claim 6 further comprising the step of the at least one other
2 computer system in the cluster responding to the first and second ordered messages by
3 sending a single acknowledge message to the cluster communication mechanism that
4 acknowledges both the first and second ordered messages.

1 8.   The method of claim 6 wherein the first and second ordered messages each
2 include a header with information that indicates whether an acknowledge message for the
3 first and second ordered messages may be delayed and grouped with at least one
4 subsequent acknowledge message.

1   9.   A program product comprising:

2   (A) a computer program comprising:

3   (A1) a cluster communication mechanism that includes a sliding send

4   window that communicates at least one ordered message to at least one other

5   computer system in a cluster without waiting for an acknowledgment from the at

6   least one other computer system before sending out the next ordered message; and

7   (B) computer-readable signal bearing media bearing the computer program.

1   10.   The program product of claim 9 wherein the signal bearing media comprises

2   recordable media.

1   11.   The program product of claim 9 wherein the signal bearing media comprises

2   transmission media.

1   12.   The program product of claim 9 wherein each ordered message includes a header

2   with information that indicates whether an acknowledge message for the ordered

3   messages may be delayed and grouped with at least one subsequent acknowledge

4   message.

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